construction and operation of the associated facilities, including waste characteristics and toxicity;

- (3) Any proposed mitigation measures to avoid or minimize adverse impacts on the environment;
- (4) A certificate of consistency with the federally approved State coastal zone management program, where applicable; and
- (5) Alternative sites and technologies considered by the lessee and the reasons why they were not chosen.
- (n) Any other information needed for technical evaluation of the planned activity, such as sample analyses to be conducted at sea, and the evaluation of potential environmental impacts.

§ 282.23 Testing Plan.

All testing activities shall be conducted in accordance with a Testing Plan submitted by the lessee and approved by the Director. Where a lessee needs more information to develop a detailed Mining Plan than is obtainable under an approved Delineation Plan, to prepare feasibility studies, to carry out a pilot program to evaluate processing techniques or technology or mining equipment, or to determine environmental effects by a pilot test mining operation, the lessee shall submit a comprehensive Testing Plan for the Director's approval. Any OCS minerals acquired during activities conducted under an approved Testing Plan will be subject to the payment of royalty pursuant to the governing lease terms. A Testing Plan at a minimum shall include the following:

(a) The nature and purpose of the proposed testing program.

(b) A comprehensive description of the activities to be performed including descriptions of the proposed methods for analysis of samples taken.

(c) A narrative description and maps showing water depths and the locations of the proposed pilot mining or other testing activities.

- (d) A comprehensive description of the method and manner in which testing activities will be conducted and the results the lessee expects to obtain as a result of those activities.
- (e) The name, registration, and type of equipment to be used, including vessel types together with their naviga-

tion and mobile communication systems, and transportation corridors to be used between the lease and shore.

- (f) Information showing that the equipment to be used (including the vessel) is capable of performing the intended operation in the environment which will be encountered.
- (g) A schedule specifying the starting and completion dates for each of the testing activities.
- (h) A list of known archaeological resources on the lease and measures to be used to assure that the proposed testing activities do not damage those resources.
- (i) A description of any potential conflicts with other uses and users of the area.
- (j) A description of measures to be taken to avoid, minimize, or otherwise mitigate air, land, and water pollution and damage to aquatic and wildlife species and their habitat; any unique or special features in the lease area, other natural resources of the OCS; and hazards to public health, safety, and navigation.
- (k) A description of the measures to be taken to monitor the impacts of the proposed testing activities in accordance with §282.28(c) of this part.
- (l) A detailed description of the cycle of all materials including samples and wastes, the method for discharge and disposal of waste and refuse, and the chemical and physical characteristics of such waste and refuse.
- (m) A detailed description of practices and procedures to effect the abandonment of testing activities, e.g., abandonment of a pilot mining facility. The proposed procedures shall indicate the steps to be taken to assure that mined areas do not pose a threat to the environment and that the seafloor is left free of obstructions and structures that may present a hazard to other uses or users of the OCS such as navigation or commercial fishing.
- (n) A description of potential environmental impacts of testing activities including the following:
- (1) The location of associated port, transport, processing, and waste disposal facilities and affected environment (e.g., maps, land use, and layout);

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- (2) A description of the nature and degree of potential environmental impacts of the proposed testing activities and the domestic socioeconomic effects of construction and operation of the proposed testing facilities, including waste characteristics and toxicity;
- (3) Any proposed mitigation measures to avoid or minimize adverse impacts on the environment:
- (4) A certificate of consistency with the federally approved State coastal zone management program, where applicable; and
- (5) Alternate sites and technologies considered by the lessee and the reasons why they were not selected.
- (o) Any other information needed for technical evaluation of the planned activities and for evaluation of the impact of those activities on the human, marine, and coastal environments.

§282.24 Mining Plan.

- All OCS mineral development and production activities shall be conducted in accordance with a Mining Plan submitted by the lessee and approved by the Director. A Mining Plan shall include comprehensive detailed descriptions, illustrations, and explanations of the proposed OCS mineral development, production, and processing activities and accurately present the lessee's proposed plan of operation. A Mining Plan at a minimum shall include the following:
- (a) A narrative description of the mining activities including:
- (1) The OCS mineral(s) or material(s) to be recovered:
- (2) Estimates of the number of tons and grade(s) of ore to be recovered;
 - (3) Anticipated annual production;
- (4) Volume of ocean bottom expected to be disturbed (area and depth of disruption) each year; and
- (5) All activities of the mining cycle from extraction through processing and waste disposal.
- (b) Maps of the lease showing water depths, the outline of the mineral deposit(s) to be mined with cross sections showing thickness, and the area(s) anticipated to be mined each year.
- (c) The name, registration, and type of equipment to be used, including vessel types as well as their navigation and mobile communication systems,

- and transportation corridors to be used between the lease and shore.
- (d) Information showing that the equipment to be used (including the vessel) is capable of performing the intended operation in the environment which will be encountered.
- (e) A description of equipment to be used in mining, processing, and transporting of the ore.
- (f) A schedule indicating the anticipated starting and completion dates for each activity described in the plan.
- (g) For onshore processing, a description of how OCS minerals are to be processed and how the produced OCS minerals will be weighed, assayed, and royalty determinations made.
- (h) For at-sea processing, additional information including type and size of installation or structures and the method of tailings disposal.
- (i) A list of known archaeological resources on the lease and the measures to be taken to assure that the proposed mining activities do not damage those resources.
- (j) Description of any potential conflicts with other uses and users of the area.
- (k) A detailed description of the nature and occurrence of the OCS mineral deposit(s) in the leased area with adequate maps and sections.
- (l) A detailed description of development and mining methods to be used, the proposed sequence of mining or development, the expected production rate, the method and location of the proposed processing operation, and the method of measuring production.
- (m) A detailed description of the method of transporting the produced OCS minerals from the lease to shore and adequate maps showing the locations of pipelines, conveyors, and other transportation facilities and corridors.
- (n) A detailed description of the cycle of all materials including samples and wastes, the method of discharge and disposal of waste and refuse, and the chemical and physical characteristics of the waste and refuse.
- (o) A description of measures to be taken to avoid, minimize, or otherwise mitigate air, land, and water pollution and damage to aquatic and wildlife species and their habitats; any unique or special features in the lease area,